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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,718	04/16/2004	Alan E. Humphrey	2100356-991113	9950
26379	7590	07/08/2005	EXAMINER	
DLA PIPER RUDNICK GRAY CARY US, LLP			HOLLINGTON, JERMELE M	
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E. PALO ALTO, CA 94303-2248			PAPER NUMBER	

2829

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/825,718

Applicant(s)

HUMPHREY ET AL.

Examiner

Jermele M. Hollington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-15, 17-24 and 26-30 is/are rejected.
- 7) ☒ Claim(s) 9, 16 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claim 2 is objected to because of the following informalities: in line 3 of the claim, “a prober” should be change to --said prober-- in order to avoid a positive recitation of the limitation in the claim. Appropriate correction is required.
2. Claim 3 is objected to because of the following informalities: in line 2 of the claim, “a prober” should be change to --said prober-- in order to avoid a positive recitation of the limitation in the claim. Appropriate correction is required.
3. Claim 8 is objected to because of the following informalities: in line 3 of the claim, “a cleaning device” should be change to --said cleaning device-- and “a working surface” should be change to --said working surface-- in order to avoid a positive recitation of the limitation in the claim. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8, 10-12 and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamasaka (6130104).

Regarding claim 1, Yamasaka discloses [see Figs. 1 and 6] a cleaning device (cleaner 1), comprising: a cleaning pad (cleaner layer 4) capable of being adhered to a substrate (substrate 5) that cleans a probe element (probe 17A) of a prober (probe card 17 in Fig. 3) wherein the probe element (17A) is capable of being inserted into the cleaning pad (4) [see Figs. 1A and 1B]; and wherein the cleaning pad (4) further comprises a working surface (elastic material layer 2) into which the probe element (17A) is inserted, the working surface (2) having a characteristic that permits the prober (17) to determine the location of the working surface (2) of the cleaning pad (4).

Regarding claim 2, Yamasaka discloses the characteristic of the working surface (2) of the cleaning pad (4) further comprises a matte surface finish (skin film 2A) that is formed by a release liner removed from the working surface (2) prior to use so that said prober (17) that uses optical energy is able to detect the location of the working surface (2) of the cleaning pad (4).

Regarding claim 3, Yamasaka disclose the characteristic of the working surface (2) of the cleaning pad (4) further comprises a conductive surface (skin film 2A) so that said prober that uses conductance is able to detect the location of the working surface (2) of the cleaning pad (4).

Regarding claim 4, Yamasaka discloses the cleaning pad (4) further comprises an additive (filler 3) so that the cleaning pad (4) is conductive.

Regarding claim 5, Yamasaka discloses the additive (3) further comprises at least one of conductive carbon-graphite particles or fibers (glass fibers 3A), metal plated abrasive particulates or fibers, and metallic particulates or fibers.

Regarding claim 6, Yamasaka discloses the cleaning pad (4) further comprises a conductive polymer (filler 3).

Regarding claim 7, Yamasaka discloses the conductive polymer (3) further comprises one of polyanilenes, polypmoles and polythiophenes [see col. 7, lines 18-51].

Regarding claim 8, Yamasaka discloses [see Figs. 1 and 6] a method for fabricating a cleaning device (cleaner 1) whose working surface (elastic material layer 2) is capable of being detected by a prober device (probe card 17 in Fig. 3), the method comprising: forming said cleaning device (1) having said working surface (2); and removing a layer (skin film 2A) from the working surface (2) wherein the removal of the layer (2A) imparts a matte finish to the working surface (2) of the cleaning device (1).

Regarding claim 10, Yamasaka discloses [see Figs. 1 and 6] a method for the automatic detection of a cleaning device (cleaner 1), comprising: detecting a working surface (elastic material layer 2) of the cleaning device (1); and performing a cleaning operation based on the detected working surface (2) of the cleaning device (1).

Regarding claim 11, Yamasaka discloses detecting further comprises directing optical energy towards the working surface (2) of the cleaning device (1) and determining the location of the working surface (2) of the cleaning device (1) based on the optical energy reflected off of the working surface (2) of the cleaning device (1).

Regarding claim 12, Yamasaka discloses detecting further comprises measuring [via probe card 17] the conductance of the working surface (2) of the cleaning device (1) in order to determine the position of the working surface (2) of the cleaning device (1).

Regarding claims 20-21, Yamasaka discloses a method for cleaning a probe element (probe 17A) of a prober (probe card 17 in Fig. 3) for semiconductor devices, the method comprising: providing a cleaning device (cleaner 1) having a pad (cleaner layer 4); inserting the

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probe element (17A) into the pad (4) [see Figs. 1A and 1B] and wherein a tip of the probe element (17A) is reshaped during the cleaning.

6. Claims 13-15, 17-19, 22-24 and 26-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Sugiyama et al (6118290).

Regarding claims 13 and 22, Sugiyama et al disclose [see Figs. 1-2 and 4] a method for testing semiconductor device (wafer W) in an automatic cleaning mode, the method comprising; performing [via test head 19] testing of semiconductor devices (W); during the testing operation, automatically determining that a cleaning [via cleaner tool 20] is to be performed; automatically determining the location of a working surface (not number but shown) of a cleaning device (20) based on a characteristic of the working surface; performing the cleaning using the cleaning device (20); and continuing the testing of semiconductor device (W).

Regarding claims 14 and 23, Sugiyama et al disclose determining that cleaning is to be performed further comprises measuring [via test head 19] the parameters of each semiconductor device (W) being tested and initiating a cleaning step when the measured parameters vary from a normal value.

Regarding claims 15 and 24, Sugiyama et al disclose determining that cleaning is to perform further comprises performing a cleaning step after a predetermined number of testing operations.

Regarding claims 17 and 26, Sugiyama et al disclose determining the working surface of the cleaning device (20) further comprises measuring [via test head 19] the conductance of the working surface of the cleaning device (20) in order to determine the position of the working surface of the cleaning device (20).

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Regarding claims 18-19 and 27-28, Sugiyama et al disclose performing the cleaning further comprises moving the probe element (17A) in a horizontal orbital motion.

Regarding claim 29, Sugiyama et al disclose the cleaning pad (20) further comprises an abrasive incorporated into the cleaning pad (20).

Regarding claim 30, Sugiyama et al disclose the abrasive further comprises one of aluminum oxide, silicon carbide and diamond.

### *Conclusion*

7. Claims 9, 16 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: regarding claim 9, the primary reason for the allowance of the claim is due to a structure of a cleaning device comprises first release line layer, a second release liner and adhesive layer.

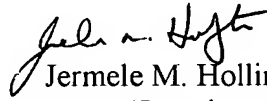
Regarding claims 16 and 25, the reason for the allowance of the claims is due to a method for testing devices comprises determining the working surface of the cleaning device comprises directing optical energy towards the working surface of the cleaning device and determine the location of the working surface based on the optical energy reflected off of the working surface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (571) 272-1960. The examiner can normally be reached on M-F (9:00-4:30 EST) First Friday Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (517) 272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jermele M. Hollington  
Patent Examiner  
Art Unit 2829

JMH  
July 7, 2005